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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/664,085	09/18/2000	John E. Bennett	Q858-E	3902

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Natan Epstein ESQ.  
LAW OFFICES OF NATAN EPSTEIN  
11377 WEST OLYMPIC BOULEVARD  
TRIDENT CENTER-9TH FLOOR  
LOS ANGELES,, CA 90064-1683

EXAMINER

HUTTON JR, WILLIAM D

ART UNIT	PAPER NUMBER
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2178

DATE MAILED: 06/18/2003

11

Please find below and/or attached an Office communication concerning this application or proceeding.

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<b>Office Action Summary</b>	<b>Application No.</b> 09/664,085	<b>Applicant(s)</b> BENNETT ET AL.	
	<b>Examiner</b> Doug Hutton	<b>Art Unit</b> 2178	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

1) ☒ Responsive to communication(s) filed on 03 April 2003.

2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

4) ☒ Claim(s) 1-39 is/are pending in the application.

4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.

5) ☒ Claim(s) 1-17, 22-25 and 37 is/are allowed.

6) ☒ Claim(s) 29, 30, 38 and 39 is/are rejected.

7) ☒ Claim(s) 18-21, 26-28 and 31-36 is/are objected to.

8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

9) ☐ The specification is objected to by the Examiner.

10) ☒ The drawing(s) filed on 18 September 2000 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a) ☐ All   b) ☐ Some \*   c) ☐ None of:

1. ☐ Certified copies of the priority documents have been received.

2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.

3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

1) <input type="checkbox"/> Notice of References Cited (PTO-892)	4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____
2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)	5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)
3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____	6) <input type="checkbox"/> Other: _____

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PTO-326 (Rev. 04-01)

Office Action Summary

Part of Paper No. 11

***Applicant's Response***

In Paper No. 10, Applicant amended Claims 18, 21 and 26-32, added new Claims 33-39, and argued against all objections and rejections previously set forth in Paper No. 8.

***Continued Examination Under 37 CFR 1.114***

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 3 April 2003 has been entered.

***Claim Objections***

Claims 18-21, 26-28 and 31-36 are objected to because of the following informalities:

- the phrase "into engagement with said detent" (Claim 18, Line 11 and Claim 26, Line 16 and Claim 31, Lines 3-4) should be amended to – operative – because another "engagement" is previously mentioned (Claim 18, Line 6 and Claim 26,

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Line 6 and Claim 29, Line 6) in the claim and is referenced subsequently (Claim 18, Line 12 and Claim 26, Line 17 and Claim 31, Line 4).

Claims 29-32 are objected to because of the following informalities:

- the phrase "said pin" (Claim 29, Line 10) should be amended to – a pin – because the pin is not previously mentioned in the claim.

Appropriate correction is required.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 29, 30, 38 and 39 are rejected under 35 U.S.C. 103(a) as being unpatentable over admitted prior art (Admission), in view of Bloedau, U.S. Patent No. 5,938,629, and further in view of Bennett et al., U. S. Patent No. 5,873,847.

*Claims 29 and 38:*

Admission discloses a hinge for an orthopedic splint comprising:

- an upper plate and a lower plate connected for pivotal movement (see Applicant's Specification – Page 1, Lines 16-19);

- a detent element supported on said upper plate and displaceable into and out of an engaged condition thereby to lock the two plates against said pivotal movement in a selected angular relationship relative to each other (see Applicant's Specification – Page 1, Lines 23-30);
- a pair of wheels turning concentrically with said pivotal movement of the plates, each of said wheels having a wheel edge engageable by said detent for locking the wheel relative to said upper plate (see Applicant's Specification – Page 2, Lines 1-9); and
- a stop on each of said wheels operative for limiting pivotal movement of said lower plate relative to said upper plate in one direction of movement (see Applicant's Specification – Page 2, Lines 1-9).

Admission fails to disclose a spring normally urging said detent into said engagement with said plates. However, it is well-known in the art to include a spring (74, Figure 4) normally urging a detent (70) into engagement with plates, as demonstrated by Kilbey, U.S. Patent No. 5,814,000.

Admission fails to disclose a pin on the lower plate that is disposed for movement between the two stops.

Bloedau teaches a hinge for an orthopedic splint comprising:

- a pair of wheels (44, 44A; Figure 3) turning concentrically with pivotal movement of an upper plate and a lower plate (see Figure 5A), each of said wheels having a

wheel edge (46, Figures 5B and 5C) engageable by a detent (32, Figure 4A) for locking the wheels relative to said upper plate;

- a stop (49B, Figure 4B; and 49A, Figure 4C) on each of said wheels operative for limiting pivotal movement of said lower plate relative to said upper plate in one direction of movement; and
- a pin (48, Figure 3) on said lower plate being disposed for movement between two stops (see Figure 5A) such that the range of pivotal movement between the plates may be set by the angular spacing between the two stops when said detent is engaged for locking said wheels against rotation relative to said upper plate (Column 1, Lines 35-40),

for the purpose of adjusting the position and the amount of pivotal movement between upper and lower plates.

Accordingly, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the admitted prior art to include a pin on said lower plate being disposed between the two stops such that the range of pivotal movement between the plates may be set by the angular spacing between the two stops when said detent is engaged for locking said wheels against rotation relative to said upper plate for the purpose of adjusting the position and the amount of pivotal movement between upper and lower plates, as taught by Bloedau.

Admission, in view of Bloedau, fails to disclose a tab extending radially from each of said wheels.

Bennett et al. teaches a tab (38 and 40, Figure 2) extending radially from each of said wheels (see Figure 2) and directional markings on each said tab (see “directional markings” on each tab, Figure 2) as a visual indicator for assisting a therapist in setting the relative angular positions of the wheels during the adjustment of the hinge (Column 4, Lines 32-42).

Accordingly, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the admitted prior art, in view of Bloedau, to include a tab extending radially from each of said wheels and directional markings on each said tab as a visual indicator for the purpose of assisting a therapist in setting the relative angular positions of the wheels during the adjustment of the hinge, as taught by Bennett et al.

*Claims 30 and 39:*

As indicated in the above discussion, Admission, in view of Bloedau, and further in view of Bennett et al., discloses every element of Claim 29. Admission, in view of Bloedau, and further in view of Bennett et al., also discloses directional markings that are straight lines.

Admission, in view of Bloedau, and further in view of Bennett et al., fails to expressly disclose directional markings that are directional **arrows**.

At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to modify Admission, in view of Bloedau, and further in view of

Bennett et al., to include directional markings that are directional **arrows**. Bennett et al. specifically discloses that other indicia may be used instead of graduation lines (Column 4, Line 40). One of ordinary skill in the art, furthermore, would have expected Applicant's invention to perform equally well with directional markings that are straight lines, arrows or other indicia because the orthopedic splint functions the same way and has the same purposes regardless of which indicia comprise the directional markings.

Therefore, it would have been obvious to one of ordinary skill in this art to modify Admission, in view of Bloedau, and further in view of Bennett et al., to obtain the invention as specified in Claim 30.

***Allowable Subject Matter***

Claims 1-17, 22-25 and 37 are allowed.

The following is an examiner's statement of reasons for allowance:

***Claim 1:***

The prior art fails to disclose or suggest a hinge for an orthopedic splint, comprising:

- an upper plate and a lower plate connected for pivotal movement;
- a detent supported on said upper plate and displaceable into and out of an engaged condition thereby to lock the two plates against said pivotal movement;
- a spring normally urging said detent into said engagement; and



- a cover means protecting said detent against displacement out of said engagement by an unaided hand, said cover means having an aperture that is sized and disposed for admitting a tool end operative for displacing said detent out of said engagement against said urging of said spring and thus freeing the plates for said pivotal movement.

*Claims 2-17:*

These claims are dependent upon Claim 1 and are thus allowable.

*Claim 22:*

The prior art fails to disclose or suggest a hinge for an orthopedic splint, comprising:

- an upper plate and a lower plate connected for pivotal movement;
- a detent supported on said upper plate and displaceable into and out of an engaged condition thereby to lock the two plates against said pivotal movement;
- a spring normally urging said detent into said engagement; and
- a locking element removably engageable with said detent for holding said detent out of said engagement thereby to facilitate adjustment of the plates to a desired angular relationship.

*Claims 23-25 and 37:*

These claims are dependent upon Claim 22 and are thus allowable.

Claims 18-21, 26-28 and 33-36 are objected to, but would be allowable if rewritten to obviate the objections.

The following is a statement of reasons for the indication of allowable subject matter:

*Claims 18 and 26:*

The prior art fails to disclose or suggest a hinge for an orthopedic splint, comprising:

- an upper plate and a lower plate connected for pivotal movement;
- a detent supported on said upper plate and displaceable into and out of an engaged condition thereby to lock the two plates against said pivotal movement;
- a spring normally urging said detent into said engagement; and
- a cover means protecting said detent against displacement out of said engagement by an unaided hand, said cover means having an aperture that is sized and disposed for admitting a tool end operative for displacing said detent out of said engagement and thus freeing the plates for said pivotal movement.

*Claims 19-21, 27, 28 and 33-36:*

These claims are dependent upon Claims 18 and 26 and thus include allowable subject matter.

Claims 31 and 32 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter:

*Claim 31:*

The prior art fails to disclose or suggest a hinge for an orthopedic splint, comprising:

- an upper plate and a lower plate connected for pivotal movement;
- a detent supported on said upper plate and displaceable into and out of an engaged condition thereby to lock the two plates against said pivotal movement;
- a spring normally urging said detent into said engagement; and
- a covering structure adjacent to said detent for preventing access to said detent by an unaided hand, said cover means having an aperture for admitting a tool operative for displacing said detent out of said engagement and thus freeing the plates for said pivotal movement.

*Claim 32:*

This claim is dependent upon Claim 31 and thus includes allowable subject matter.

***Response to Arguments***

Applicant's arguments filed 3 April 2003 have been fully considered but they are not persuasive.

***Claims 29 and 38:***

Applicant argues that the prior art fails to disclose "directional markings" on the tabs of the wheels. See *Applicant's Response* – Paper No. 10; Page 2, fifth paragraph.

Examiner disagrees. The phrase "directional markings" is very broad. Bennett discloses straight lines on the tabs of the wheels. The lines are "markings" that are straight and extend in a "direction;" thus, the lines are "directional markings".


Accordingly, this limitation reads on the prior art.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Doug Hutton whose telephone number is (703) 305-1701. The examiner can normally be reached on Monday-Friday from 8:00 AM to 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Anthony Knight, can be reached at (703) 308-1159. The fax phone number for the organization where this application or proceeding is assigned is (703) 305-7687.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-2168.

WDH  
June 13, 2003

  
**ANTHONY KNIGHT**  
**SUPERVISORY PATENT EXAMINER**  
**TECH CENTER 3600**